

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference TLSIP00WO	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US99/26894	International filing date (day/month/year) 12 NOVEMBER 1999	Priority date (day/month/year) 01 DECEMBER 1998
International Patent Classification (IPC) or national classification and IPC IPC(7): H04L 12/56; H04M 7/06 and US Cl.: 370/389, 422, 379/230		
Applicant SIMON, THOR		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 4 sheets.
- ☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority. (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 0 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of report with regard to novelty, inventive step or industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability: citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 05 JULY 2000	Date of completion of this report 29 MARCH 2001
Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No.: (703) 305-3230	Authorized officer SOON-DONG HYUN <i>Kyugema Zogor</i> Telephone No.: (703) 308-0000

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US99/26894

I. Basis of the report

1. With regard to the elements of the international application:*

☒ the international application as originally filed☒ the description:

pages 1-25, as originally filed
pages NONE, filed with the demand
pages NONE, filed with the letter of

☒ the claims:

pages 26-32, as originally filed
pages NONE, as amended (together with any statement) under Article 19
pages NONE, filed with the demand
pages NONE, filed with the letter of

☒ the drawings:

pages 1-4, as originally filed
pages NONE, filed with the demand
pages NONE, filed with the letter of

☒ the sequence listing part of the description:

pages NONE, as originally filed
pages NONE, filed with the demand
pages NONE, filed with the letter of

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.
These elements were available or furnished to this Authority in the following language _____ which is:☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).☐ the language of publication of the international application (under Rule 48.3(b)).☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

☐ contained in the international application in printed form.☐ filed together with the international application in computer readable form.☐ furnished subsequently to this Authority in written form.☐ furnished subsequently to this Authority in computer readable form.☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.4. ☒ The amendments have resulted in the cancellation of:☒ the description, pages NONE☒ the claims, Nos. NONE☒ the drawings, sheets/fig. NONE5. ☐ This report has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

**Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

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V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. statement

Novelty (N)	Claims <u>1-8 and 12</u>	YES
	Claims <u>9-11 and 13-15</u>	NO
Inventive Step (IS)	Claims <u>1-8</u>	YES
	Claims <u>9-15</u>	NO
Industrial Applicability (IA)	Claims <u>1-15</u>	YES
	Claims <u>NONE</u>	NO

2. citations and explanations (Rule 70.7)

Claims 9-11, and 13-15, lack novelty under PCT Article 33(2) as being anticipated by Moquin et al (U.S. Patent No. 5,519,768).

Regarding claim 9, 13, and 14, Moquin et al discloses an advanced intelligent network (AIN) 10 to communicate common channel signaling data for a telephone processing. The AIN is a packet switching network employing a SS7 protocol and connects a plurality of service switching points (SSPs) 12, 14 (a first and a second apparatus, respectively), a signal transfer point (STP) and a service control point (SCP). Each SSP receives common channel signaling data from connected subscribers and encapsulates the data into packets to transmit the packets via the AIN. Each SSP also receives packets from the AIN and extracts the common channel signaling data from the packets and transmits the data to the subscribers. See col. 5, line 53-col. 6, line 45.

the AIN is a wide area network. A routing table is inherently required in the each SSP, because the SSP is a node of the packet switched network. The routing table in each node is used for routing packets and periodically updated.

Regarding claims 10 and 15, a packet assembling process and a packet de-assembling process in accordance with a protocol for transmitting and receiving to/from the AIN are equivalent to encrypting (encapsulating) and decrypting (unencapsulating) in the claims.

Regarding claim 11, the SSP is synchronously receiving and transmitting the common channel signaling data from/to the subscribers.

Claim 12 lack an inventive step under PCT Article 33(3) as being obvious over Moquin et al in view of Blumhardt et al (U.S. Patent No. 5,629,978).

Moquin et al teaches the AIN is based on SS7 protocol. Blumhardt et al (Blumhardt) teaches a signaling network using TCP/IP protocol. See Fig. 1. Therefore, to use TCP/IP protocol for the AIN instead of SS7 protocol to transmit the data via Internet would not have an inventive step.

Claims 1-8 meet the criteria set out in PCT Article 33(2)-(3), because the prior art does not teach or fairly suggest a packet-
(Continued on Supplemental Sheet.)

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Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

Sheet 10

V. 2. REASONED STATEMENTS - CITATIONS AND EXPLANATIONS (Continued):
because the prior art does not teach or fairly suggest a packet-switch communication channel of a type routing messages over an arbitrary path comprising hops including a final hop in which the final hop of the path is not fully known in advance as recited in the claims 1 and 7.

Claims 1-15 meet the criteria set out in PCT Article (4), because a common channel signaling has use in a telecommunication network.

----- NEW CITATIONS -----

US 5,519,768 A (MOQUIN et al) 21 MAY 1996, see col. 5, line 53-col. 6, line 45.
US 5,629,978 A (BLUMHARDT et al) 13 MAY 1997, see FIG. 1.